

Work Order ID 163801

Monday, July 10, 2017 11:53:27 AM

163801

Page 1

Item ID: D2344 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Deck Plate Aft
 Start Date: 7/13/2017 Start Qty: 6.00 ***6*** Cust Item ID:
 Required Date: 7/21/2017 Req'd Qty: 6.00 ***6*** Customer:
 Reference:

Approvals: Process Plan: DAS Date: JUL 12 2017 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: 21 Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***
2-89

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2344	Rev F								

100 FLOW WATER JET 0.00
100
 Waterjet Memo 0.77
 FLOW CNC Waterjet 1-Cut as per dwg
 prog rev: F
 dwg rev: F
 2-deburr as required
 110 QC2- Inspect parts off machine FAI/FAIB 0.00
110
 QC Memo 0.06
 Quality Control

(6) 02/17/07/15
 (6) 02/17/07/15

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

163801

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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 7/13/2017 **Start Qty:** 6.00 ***6***

Cust Item ID: _____

Required Date: 7/21/2017 **Req'd Qty:** 6.00 ***6***

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120 QC8- Inspect parts - second check

0.00

120

OC

Memo

0.12

Quality Control

JUL 17 2017

130

0.00

130

Small Fab

Small Fab

Memo

0.90

Small Fab

1-Deburr sharp edges 2-Countersink holes per Dwg D2344

140

QC5- Inspect part completeness to step on W/O	0.00
---	------

140

QC

Memo

0.12

Quality Control

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

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 Start Date: 7/13/2017 Start Qty: 6.00 *6* Cust Item ID:
 Required Date: 7/21/2017 Req'd Qty: 6.00 *6* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Chemical Conversion Coat per QSI005 4.1	0.00							
150	HandFinish	0.58				(K6)	Ø		2017/07/25 BEB.
Hand Finishing	Memo								
155	QC7-Inspect Chemical Conversion Coat	0.00							
155	QC	0.06							6 Ø 1707-31 34 9:39
Quality Control	Memo								
160	Black Sandtex(Ref:4.3.5.7) per QSI005 4.3	0.00							
160	Powdercoat	0.43							6 Ø 1707-31 34 9:39
Powder Coating	Memo								
	START TIME: 2:15	OVEN TEMPERATURE: 2145							
	FINISH TIME: 2:45								

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	☐	Past Due ☐							

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Page 4

Item ID: D2344 Accept ***N900040100*** Setup Start ***NS1***
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Item Name: Deck Plate Aft
Start Date: 7/13/2017 Start Qty: 6.00 ***6*** Cust Item ID:
Required Date: 7/21/2017 Req'd Qty: 6.00 ***6*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC3- Inspect Part Finish	0.00							
170									DAS
QC	Memo	0.06							38
Quality Control									9-89
									AUG 01 2017
180	Identify as per dwg & Stock Location: 5722SA	0.00							
180									DAS
Packaging	Memo	0.06							6
Packaging									9-89
									AUG 02 2017
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.60							
Quality Control									

17/8/2017

AUG 02 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Monday, July 10, 2017 11:53:25 AM

Page 1

Work Order ID: 163801

163801

Parent Item: D2344

D2344

Parent Item Name: Deck Plate Aft

Start Date: 7/13/2017

Required Date: 7/21/2017

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:D00.06.26Removed P/O for powder coatEC
IPP Rev:E 07-07-04 Asper Rev F JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.063		Purchased		No		100	sf	65.3300	0.745	4.705263			

M2024T3S 063

2024-T3 .063 sheet

**

485.1

02/17/07/15

Location

Loc Qty

Loc Code

MAT

2.4

m135512

2.4

MAT009

62.93

m134640

7.34

m135612

2.8

m137218

23.99

m137599

28.8

1.7

3.4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

DART AEROSPACE LTD		Work Order: 163801
Description: Litter Deck Plate Kit (350)		Part Number: D2344
Inspection Dwg: D2344 Rev: F		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ **First Article**

 ☐ **Prototype**

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
6.223	+/-0.010	6.224	1		Vide-02	
5.598	+/-0.010	5.599	1		Top	
4.869	+/-0.010	4.868	1			
3.889	+/-0.010	3.890	1			
3.096	+/-0.010	3.097	1			
2.891	+/-0.010	2.890	1			
16.973	+/-0.010	16.973	1			
0.450	+/-0.010	.452	1			
4.423	+/-0.010	4.424	1			
4.723	+/-0.010	4.723	1			
1.202	+/-0.010	1.203	1			
5.869	+/-0.010	5.870	1			
4.654	+/-0.010	4.655	1			
Ø0.656	+0.005/-0.000	Ø.656	1			
1.888	+/-0.010	1.889	1			
2.285	+/-0.010	2.286	1			
2.683	+/-0.010	2.683	1			
Ø0.171	+0.005/-0.000	Ø.170	1			
3.491	+/-0.010	3.493	1			
Ø0.191	+0.005/-0.000	Ø.190	1			
3.123	+/-0.010	3.124	1			
1.975	+/-0.010	1.974	1			
Ø0.128	+0.005/-0.001	Ø.127	1			

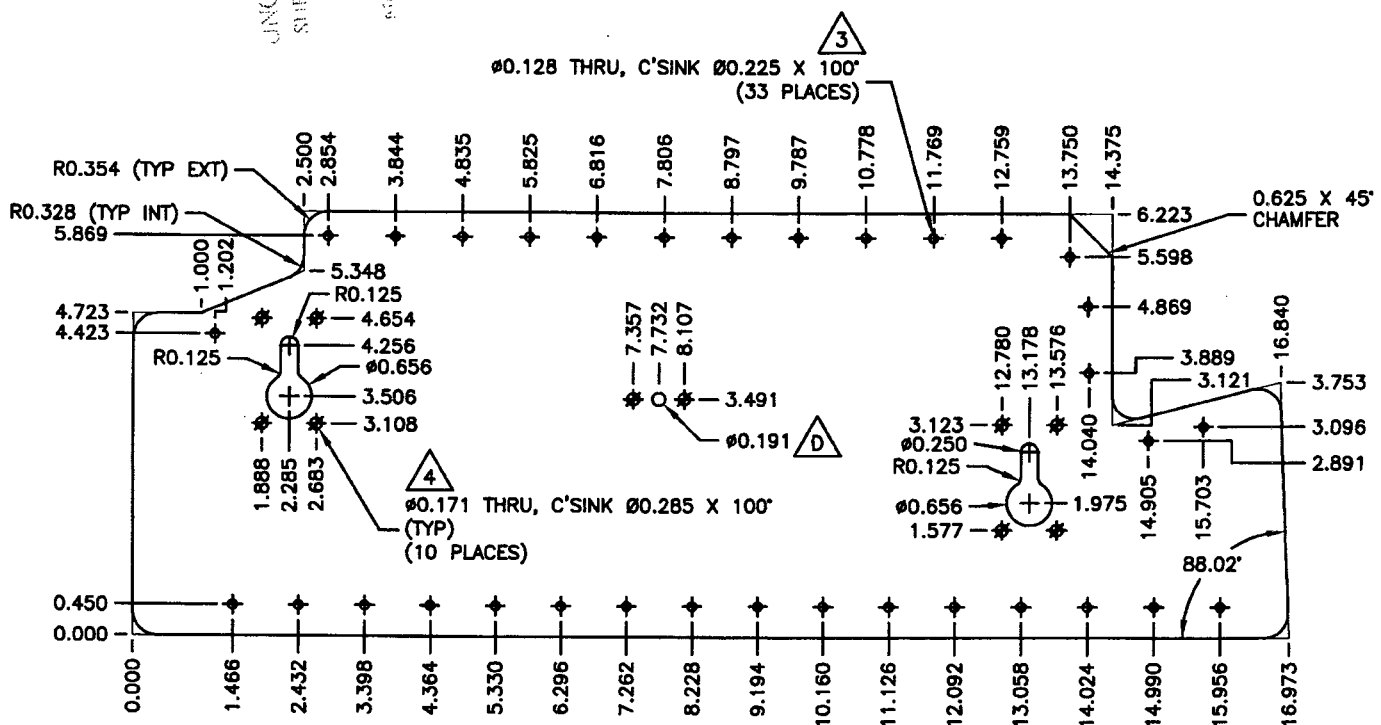
Measured by: <i>pc</i>	Audited by: 38 9-89	Prototype Approval:	N/A
Date: 17/07/15	Date: JUL 17 2017	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.06.25	New Issue P/O D350-616-015	KJ/JLM	
B	07.07.17	Dwg Rev. updated	KJ/JLM	
C	07.09.06	Dimensions updated per Dwg. Rev. F	KJ/JLM <i>JA</i>	<i>BE</i>

DART

DESIGN KE	DRAWN BY <i>BC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>JB</i>	APPROVED <i>H</i>	DRAWING NO. D2344	REV. F SHEET 1 OF 1
DATE 07.06.07		TITLE LITTER DECK PLATE, 350	SCALE 1:3
A	95.01.14	NEW ISSUE	
B	95.02.09	MOVED KEY HOLES	
D	95.03.06	0.191 WAS 0.197	
E	98.06.19	0.063-0.071 THICK WAS 0.071 (TSR A371)	
F	07.06.07	C'SINK Ø0.285 WAS Ø0.308	

STOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 163801
170712

**D2344 LITTER DECK PLATE 350**

- E** 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.063-0.071 THICK PER QQ-A-250/4
(REF. DART SPEC. M2024T3S)
- F** 2) FINISH: POWDER COAT BLACK SANDTEX (REF. 4.3.5.7) PER DART QSI 005 4.3
- 3) COUNTERSINK HOLES MARKED $\star$ TO Ø0.225 X 100"
- 4) COUNTERSINK HOLES MARKED $\star$ TO Ø0.285 X 100"
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 8) IDENTIFY WITH DART P/N "D2344" USING WHITE PAINT MARKER

RELEASED

07.06.02

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